

The Knowledge Bank at The Ohio State University

Ohio State Engineer

Title: Back Matter

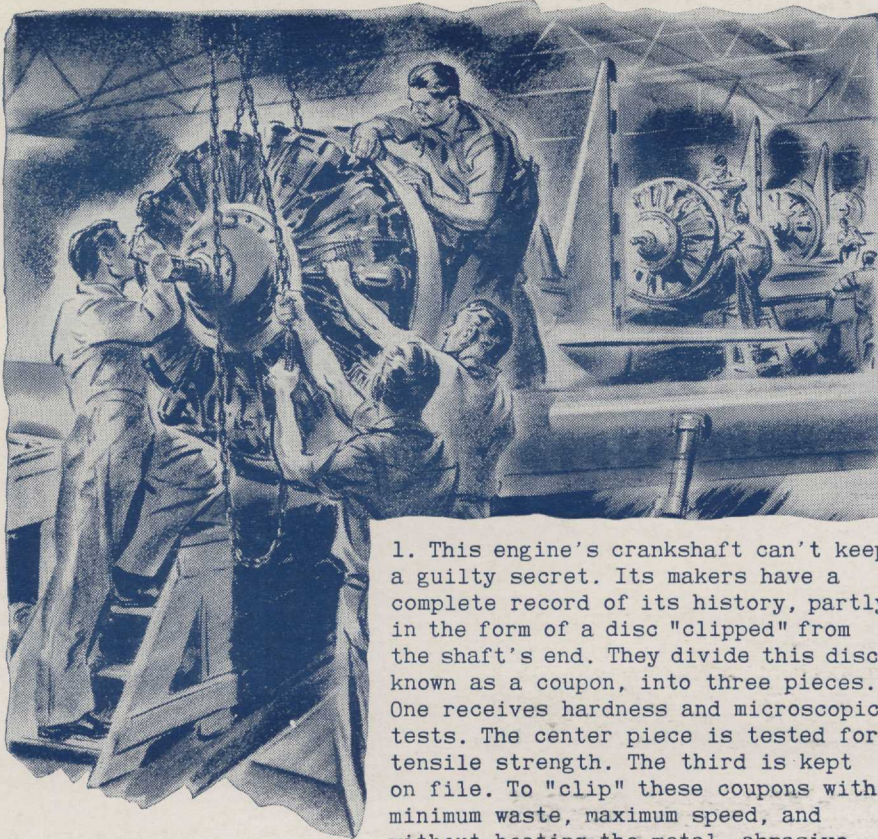
Issue Date: 1943-11

Publisher: Ohio State University, College of Engineering

Citation: Ohio State Engineer, vol. 27, no. 1 (November, 1943).

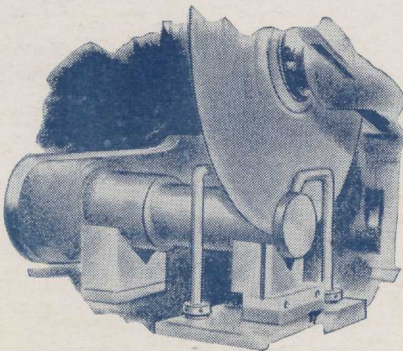
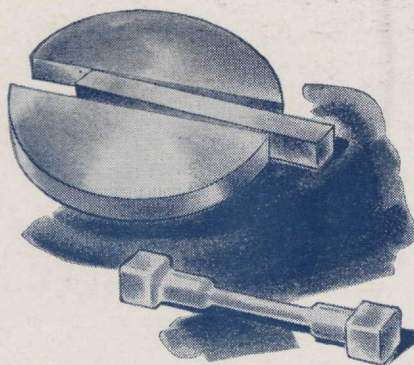
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Clipping coupons from airplane engine crankshafts!



1. This engine's crankshaft can't keep a guilty secret. Its makers have a complete record of its history, partly in the form of a disc "clipped" from the shaft's end. They divide this disc, known as a coupon, into three pieces. One receives hardness and microscopic tests. The center piece is tested for tensile strength. The third is kept on file. To "clip" these coupons with minimum waste, maximum speed, and without heating the metal, abrasive cutting off wheels are employed.

2. With speed and precision counting for so much these days, abrasive cutting off wheels by Carborundum are coming into far wider use. In seconds they perform jobs which require minutes by ordinary methods. Such wheels are now used to cut plastics, glass, brick, tile, steel and non-ferrous metals in plate and bar stock faster and more accurately than they were ever cut before.



3. In industry you may run into abrasive applications that may be strange to you. When and if you do, remember that Carborundum is ready to help you solve your abrasive problems. The Carborundum Company, Niagara Falls, N. Y.





Campus News

RESEARCH AND ENGINEERING KEEP GENERAL ELECTRIC YEARS AHEAD

... PASS THE PLASTICS AMMUNITION

INSTRUCTION instead of destruction is the purpose of the new machine gun developed recently by the Edison General Electric Appliance Company. Designed to train soldiers, the new gun uses plastics bullets and compressed air instead of expensive bullets and gunpowder.

Operated by electricity, built to the actual size and appearance of the 50-calibre Browning machine gun, the new model will fire 600 rounds of plastics bullets per minute—the same rate as the Browning. But the new bullets cost less than a cent apiece (and can be used over and over), compared to the approximately 30-cent cost of each Browning bullet.

Amplified "explosions" of compressed air accustom the trainee to the sound of actual firing and tend to eliminate the jitters he might otherwise experience in his first combat.



TO THE RESCUE

BY the summer of '43 about the only new tail lights left were those on lightning bugs. The other kind were helping to save shipwrecked sailors who were often lost at night, because rescue parties couldn't see them.

When the Coast Guard asked G.E. for a tiny lamp that could be attached to rubber life suits, that would glow all night long, the Company supplied the lamps that they had been making for bicycle tail lights—small, rugged lamps that lasted a long time and used very little current.

These were enclosed with their tiny batteries in waterproof cases, with safety pins for attaching to the suits. And now their red glow guides the rescue ships to the sailors in time.



THE SOUND GOES ROUND AND ROUND

WINDING up words on a doughnut-sized spool, the new sound recorder being redesigned for mass production by General Electric under license from the Armour Research Foundation will eliminate the use of pencilled notes by observers on reconnaissance planes.

Sixty-six minutes of continuous speech can be reeled up on the 11,500 feet of thread-thin wire within the recorder's small box. Though employing much the same principle as the dictaphone, the observer's words are recorded magnetically on the wire, instead of being scratched into a wax cylinder.

When the recording has served its purpose, the words can be erased magnetically, and the wire is as good as new for future use. General Electric Co., Schenectady, N.Y.

Hear the General Electric radio programs: "The G-E All-girl Orchestra" Sunday 10 p.m. EWT, NBC—"The World Today" news, every weekday 6:45 p.m. EWT, CBS.

GENERAL ELECTRIC

EO

955-72-211

192,000 employees of the General Electric Company are on their jobs producing war goods and buying over a million dollars of War Bonds every week to hasten victory.

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